

REMARKS

Reconsideration of the application is respectfully requested. Claims 1-13, and 55-57 are pending, wherein, claims 1-13, and 55-56 are subject to a rejection under 35 U.S.C. § 103 (a), claim 57 is newly added, and claims 14-54 have been cancelled.

Applicant thanks the Examiner for the communication dated September 22, 2004 and submits that the instant response corrects the stated error. If the Examiner finds another such error, the Examiner is encouraged to call Applicant's attorney at (281) 834-5982. Perhaps such a small error could be handled by Examiner's amendment next time?

Claims 1-13, 55 and 56 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,434,105 to Buysch et al. (Buysch) and Chem Systems "Developments in Dimethyl Carbonate Production Technologies" 99/00S6, May 2000 (Chem Systems) each taken alone, or in combination with each other in the August 2004 office action..

Independent Claim 1, from which Claims 1-3 and 5-13 depend, and independent Claims 55 and 56 have been amended to define the homogenous carbonation catalyst as a mixture comprising a halide containing component and a bicarbonate. Support for this amendment can be found on page 9 lines 24-29. Dependent claim 3 has been amended to specify the bicarbonate catalyst as comprising sodium bicarbonate. Support for this amendment can be found on page 10 line 7. Newly added dependent claim 57 defines the homogenous carbonation catalyst as comprising a bicarbonate which comprises sodium bicarbonate and a halide containing component which is selected from the group consisting of potassium iodide, tetraethyl ammonium bromide and mixtures thereof. Support for this newly added claim can be found on page 10 lines 5-9.

Claim 1, relates to an integrated process for producing a dialkyl carbonate and a diol that comprises reacting in a first reaction zone an alkylene oxide with carbon dioxide in the presence of a homogeneous carbonation catalyst comprising bicarbonate at 50 to 200 °C and at least 1379 kPa to provide a crude cyclic carbonate stream comprising a cyclic carbonate and the bicarbonate catalyst. The crude cyclic carbonate stream is directed into a second reaction zone, wherein the cyclic carbonate is reacted with an aliphatic monohydric alcohol in the presence of the homogeneous carbonation catalyst from the crude carbonate stream to provide a crude product stream comprising a dialkyl carbonate and a diol, wherein the crude cyclic carbonate stream has not been subjected to a separation other than to remove an amount of unreacted alkylene oxide, an amount of unreacted carbon dioxide, or both, and wherein the homogeneous carbonation catalyst is a mixture comprising a halide containing component and a bicarbonate.

The Examiner has admitted that a difference between the processes of Buysch and Chem Systems and the process instantly claimed is that the prior art teaches the addition of all ingredients at once instead of sequentially in two reaction zones as instantly claimed. An additional difference between Applicants' claims and the Buysch and Chem Systems references is the respective catalyst systems. As amended, Applicants' claim a homogeneous carbonation catalyst, which is a mixture comprising a halide containing component and a bicarbonate. In contrast, Buysch and Chem Systems make no reference to a catalyst system comprised of a mixture of a halide containing component and a bicarbonate. Therefore, it cannot be fairly stated that the Buysch and Chem Systems references, alone or in combination, teach or suggest the use of Applicants' claimed catalyst system. Applicants respectfully submit that catalysis is an unpredictable art and the recitation of a catalyst other than a mixture comprising a halide containing component and a bicarbonate does not make obvious Applicants' claimed process. Accordingly, withdrawal of the 103(a) rejection to claims 1-13, and 55-56 is respectfully requested.

It is respectfully submitted that the claims are in condition for allowance and favorable action thereon is requested.

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Respectfully submitted,

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